Claims

1. Circuit configuration (10; 110; 210) for generating a control signal (Us) for an engine control unit (ECU) designed to control at least one fuel injector of an internal combustion engine, whereby operating parameters of the internal combustion engine (p, T, ...) and/or of the fuel injector are used for generating a modification signal (S) input to the circuit configuration (10; 110; 210) for the operational variation of the control signal waveform (Us(t)), comprising:

   - a counter device {12; 112; 212) which can be supplied with a predefined clock signal (fc) in order to provide a time-dependent digital counter signal (X),

   - a memory unit (14; 114; 214) which can be supplied with the digital counter signal (X), for storing a series (Y) of digital control signal values (Y1, Y2 ...) and for successively issuing individual control signal values (Y1, Y2 ...) from the series of control signal values (Y) in accordance with the counter signal (X), and

   - a digital-to-analog converter unit (16; 116; 216) for converting the issued digital control signal values (Y1, Y2 ...) into the analog control signal (Us) for the engine control unit {ECU).

2. Circuit configuration (10; 110; 210) according to Claim 1, whereby in order to provide the clock signal (fc) with the selected frequency a voltage controlled oscillator (224) to which the modification signal (S) is applied as a time

scaling signal is used.

3. Circuit configuration (10; 110; 210) according to Claim 1, whereby in order to provide the clock signal (fc) with the selected frequency an oscillator with a fixed oscillation frequency and divider (18; 118) connected downstream of the oscillator is used whose division ratio is determined by the modification signal (S) input to the divider as a time scaling signal.

4. Circuit configuration (10; 110; 210) according to one of the preceding claims, whereby a series of at least 30, in particular at least 50 control signal values (Y1, Y2 ... YN), is provided as the series of control signal values (Y) stored in the memory unit (14; 114; 214).

5. Circuit configuration (10; 110; 210) according to one of the preceding claims, whereby the series of control signal values (Y) stored in the memory unit (14; 114; 214) approaches a continuous function.

6. Circuit configuration (10; 110; 210) according to one of the preceding claims, whereby the digital control signal values (Y1, Y2 ...) are provided with a resolution of at least 8 bits.

7. Circuit configuration (10; 110; 210) according to one of the preceding claims, whereby the memory unit {14; 114; 214) takes the form of a read-only memory.

8. Method for generating a control signal (Us) for an engine control unit (ECU) designed to control at least one fuel injector of an internal combustion engine, whereby

operating parameters of the internal combustion engine (p, T, ...) and/or of the fuel injector are used for generating a modification signal (S) for the operational variation of the control signal shape (Us(t)), comprising:

- counting a predefined clock signal (fc) in order to provide a time-dependent digital counter signal (X), whereby the clock signal (fc) is predefined with a frequency which is set in accordance with the modification signal (S),

- successive issue of individual digital control signal values (Y1, Y2 ...) in accordance with the counter signal (X) from a previously stored series (Y) of control signal values (Y1, Y2 ... YN), and

- conversion of the issued digital control signal values (Y1, Y2 ...) into the analog control signal (Us) for the engine control unit (ECU), whereby the conversion of the digital control signal values (Y1, Y2 ...) into the analog control signal (Us) is implemented by taking the modification signal (S) into account as an amplitude scaling signal.